

Union Calendar No. 592

116TH CONGRESS }
2d Session

HOUSE OF REPRESENTATIVES

{ REPORT
116-708

REPORT ON THE ACTIVITIES
OF THE
SELECT COMMITTEE ON CLIMATE CRISIS
DURING THE
ONE HUNDRED AND SIXTEENTH CONGRESS
FIRST SESSION
JANUARY 2, 2019—JANUARY 3, 2020
SECOND SESSION
JANUARY 3, 2020—JANUARY 3, 2021
together with
ADDITIONAL VIEWS



DECEMBER 31, 2020.—Committed to the Committee of the Whole House
on the State of the Union and ordered to be printed

U.S. GOVERNMENT PUBLISHING OFFICE

42-827

WASHINGTON : 2020

SELECT COMMITTEE ON THE CLIMATE CRISIS

COMMITTEE MEMBERSHIP

KATHY CASTOR, Florida, *Chair*

BEN RAY LUJÁN, New Mexico
SUZANNE BONAMICI, Oregon
JULIA BROWNLEY, California
JARED HUFFMAN, California
A. DONALD McEACHIN, Virginia
MIKE LEVIN, California
SEAN CASTEN, Illinois
JOE NEGUSE, Colorado

GARRET GRAVES, Louisiana,
Ranking Member
MORGAN GRIFFITH, Virginia
GARY PALMER, Alabama
BUDDY CARTER, Georgia
CAROL MILLER, West Virginia
KELLY ARMSTRONG, North Dakota

COMMITTEE STAFF

MAJORITY COMMITTEE STAFF

ANA UNRUH COHEN, *Staff Director*
DANA GANSMAN, *Clerk*
FATIMA MARIA AHMAD, *Senior Counsel*
SAMANTHA MEDLOCK, *Senior Counsel*
MACKENZIE LANDA, *Counsel*
MELVIN FELIX, *Communications Director*
JACOB HICKS, *Digital Press Assistant*
EBADULLAH EBADI, *Policy Assistant*
ZACHARY PRITCHARD, *Fellow*
ALISON CASSADY, *Deputy Staff Director* *
JAVIER GAMBOA, *Senior Professional Staff Member* *
RALEIGH MARTIN, *Professional Staff Member* *
ABIGAIL REGITSKY, *Professional Staff Member* *
AARON HUERTAS, *Communications Director* *
MARIAH MORRISON, *Digital Production Specialist* *
LARA HOPKINS, *Shared Staff* *

MINORITY COMMITTEE STAFF

MARTY HALL, *Staff Director*
GEORGE DAVID BANKS, *Chief Strategist*
MICHAEL LEHMANN, *Communications Director*
MARCIE SMITH, *Professional Staff Member*
ADELE BORNE, *Legislative Aide and Research Analyst*
MARGARET AYREA, *Shared Employee*
DUSTIN DAVIDSON, *Shared Employee*
PHILIP ROSSETTI, *Fellow* *

* Staffer has departed Committee at time of transmittal of report.

LETTER OF TRANSMITTAL

HOUSE OF REPRESENTATIVES,
SELECT COMMITTEE ON THE CLIMATE CRISIS,
Washington, DC, December 31, 2020.

Hon. CHERYL L. JOHNSON,
Clerk, House of Representatives,
Washington, DC.

DEAR MS. JOHNSON: Pursuant to clause 1(d) of Rule XI of the Rules of the House of Representatives, I hereby submit a Report on the Activities of the Select Committee on the Climate Crisis for the 116th Congress.

This report summarizes the specific activities of the Select Committee and encompasses the period of January 3, 2019 through January 2, 2020. Also contained herein is a submission from the Democratic Majority Members which states "Additional Views."

Sincerely,

KATHY CASTOR,
Chair.

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116TH CONGRESS 2d Session	HOUSE OF REPRESENTATIVES	REPORT 116-708
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REPORT ON THE ACTIVITIES OF SELECT COMMITTEE ON THE CLIMATE CRISIS 116TH CONGRESS

DECEMBER 31, 2020.—Committed to the Committee of the Whole House on the State
of the Union and ordered to be printed

Ms. CASTOR, from the Select Committee on the Climate Crisis,
submitted the following

R E P O R T

together with

ADDITIONAL VIEWS

COMMITTEE ORGANIZATION

On March 28, 2019, the Select Committee met for an organizational meeting of the 116th Congress under the direction of Chair Kathy Castor. The Committee membership was 15 Members with 9 Democrats and 6 Republicans. The Committee adopted the rules of the Committee for the 116th Congress.

JURISDICTION

The jurisdiction of the Select Committee on the Climate Crisis, as prescribed by Clause 104(f) of rule XI of the Rules of the House of Representatives, is as follows:

(A) Legislative Jurisdiction—The Select Committee shall not have legislative jurisdiction and shall have no authority to take legislative action on any bill or resolution.

(B) Investigative Jurisdiction—The sole authority of the Select Committee shall be to investigate, study, make findings, and develop recommendations on policies, strategies, and innovations to achieve substantial and permanent reductions in pollution and other activities that contribute to the climate crisis which will honor our responsibility to be good stewards of the planet for future generations. The Select Committee may, at its discretion, hold

public hearings in connection with any aspect of its investigative functions.

RULES

(Adopted March 28, 2019)

RULE 1. GENERAL PROVISIONS

(a) The provisions of section 104(f) of H. Res. 6 (116th Congress) governing the proceedings of the Select Committee on the Climate Crisis (hereinafter referred to as the “Committee”) are hereby incorporated by reference and nothing herein shall be construed as superseding any provision of that section. The Rules of the House of Representatives shall apply to the Committee to the extent that they are not inconsistent with that title.

(b) The rules of the Committee shall be made publicly available in electronic form and published in the Congressional Record not later than 30 days after the Committee adopts its rules.

RULE 2. MEETINGS

(a) In General.—

(1) The regular meeting date of the Committee shall be the first Tuesday of every month when the House is in session in accordance with clause 2(b) of rule XI of the Rules of the House of Representatives. If the House is not in session on the first Tuesday of a month, the regular meeting date shall be the third Tuesday of that month. A regular meeting of the Committee may be dispensed with if, in the judgment of the Chair of the Committee, there is no need for the meeting.

(2) Additional meetings may be called by the Chair of the Committee as the Chair considers necessary, in accordance with clause 2(g)(3) of rule XI of the Rules of the House of Representatives.

(b) Meetings of the Committee shall be called to order and presided over by the Chair or, in the Chair’s absence, by a member designated by the Chair to carry out such duties.

(c) Notification.—

(1) Pursuant to clause 2(g)(3) of rule XI of the Rules of the House, the Chair shall make a public announcement of the date, place, and subject matter of a Committee meeting (other than a hearing), which may not commence earlier than the third calendar day (excluding Saturdays, Sundays, or legal holidays except when the House is in session on such a day) on which members have notice thereof.

(2) The agenda for each Committee meeting, setting out all items of business to be considered, shall be established by the Chair and provided to each member of the Committee at least 36 hours (exclusive of Saturdays, Sundays, and legal holidays except when the House is in session on such days) in advance of the commencement of such meeting.

(d) The requirements of paragraph (c) may be waived by a majority vote of those present, a quorum being present, or by the Chair with the concurrence of the Ranking Member. If the requirements of paragraph (c) are waived, the Chair shall notify the members of the Committee at the earliest possible time.

RULE 3. HEARINGS

(a) Announcement of Hearings.—

(1) Pursuant to clause 2(g)(3) of rule XI of the Rules of the House, the Chair shall announce the date, time, place, and subject matter of any hearing of the Committee, which may not commence earlier than one week after such notice.

(2) A hearing may commence sooner than specified in (a)(1) if the Chair, with the concurrence of the Ranking Member, determines there is good cause or the Committee so determines by majority vote, a quorum being present. The Chair shall announce the hearing at the earliest possible time.

(b) Written Witness Statement; Oral Testimony.—

(1) Filing of Statement.—To the greatest extent practicable, each witness who is to appear before the Committee shall file with the clerk of the Committee a written statement of his or her proposed testimony at least two business days in advance of his or her appearance. The clerk of the Committee shall distribute this testimony to the Members of the Committee as soon as is practicable and at least one business day before the hearing. The requirements of this subparagraph may be waived or modified by the Chair after consultation with the Ranking Member.

(2) Each witness shall limit his or her oral presentation of testimony to no more than five minutes.

(3) Truth in Testimony.—Each witness appearing in a non-governmental capacity shall include with the written statement of his or her proposed testimony a curriculum vitae and a disclosure of any Federal grants or contracts or foreign government contracts and payments related to the subject matter of the hearing received during the current calendar year or either of the two preceding calendar years by the witness or by an entity represented by the witness. The disclosure shall include (A) the amount and source of each Federal grant (or subgrant thereof) or contract (or subcontract thereof) related to the subject matter of the hearing; and (B) the amount and country of origin of any payment or contract related to the subject matter of the hearing originating with a foreign government.

(4) Availability of Information.—Statements filed under this paragraph shall be made publicly available in electronic form not later than one day after the witness appears.

(c) Notification of Subject Matter.—As soon as practicable but no later than 36 hours before the commencement of a hearing, the Chair shall make available to the public and all Members of the Committee a concise summary of the subject matter under consideration at the hearing, any relevant reports from departments or agencies on such matters, and a list of witnesses, including minority witnesses.

(d) Minority Witnesses.—When any hearing is conducted by the Committee on any measure or matter, the minority party members on the Committee shall be entitled, upon request to the Chair by a majority of those members, to call at least one witness, as selected by the minority members, to testify with respect to that measure or matter along with witnesses selected by the Chair.

(e) Opening Statements.—

(1) Chair and Ranking Member.—At any hearing of the Committee, the Chair and Ranking Member shall each control five minutes for opening statements. The Chair and Ranking Member may recognize other members within their respective five minutes.

(2) Other Members.—The Chair may allow other members of the Committee to deliver oral opening statements, as appropriate, with the concurrence of the Ranking Member. Such statements shall not exceed five minutes in length and are to be equally distributed between majority and minority members to the extent practicable given the party makeup of the members present. Members not recognized by the Chair for oral opening statements may submit written opening statements for the record.

(f) Questioning of Witnesses.—The Chair shall initiate the right to question witnesses before the Committee, followed by the Ranking Member and all other members thereafter.

(1) Order of Member Recognition.—The right to question the witnesses before the Committee shall alternate between majority and minority members. A member of the Committee may question a witness only when recognized by the Chair for that purpose. The Chair shall recognize in order of appearance members who were not present when the meeting was called to order after all members who were present when the meeting was called to order have been recognized in the order of seniority on the Committee.

(2) Procedures for Questioning of Witnesses by Members.—Each member shall be limited to 5 minutes in the questioning of witnesses and shall limit his or her remarks to the subject matter of the hearing. After consultation with the Ranking Member, the Chair may recognize members who have already had an opportunity to question the witness for a second period of 5 minutes once each member of the Committee present has been recognized once for that purpose.

(3) Extended Questioning of Witnesses by Members.—Following the questioning of witnesses described in (f)(2) above, the Chair, with the concurrence of the Ranking Member or the Committee by motion, may permit a specified number of members to question one or more witnesses for a specified period of time not to exceed 60 minutes in the aggregate, equally divided between and controlled by the Chair and the Ranking Member.

(4) Questions for the Record.—Each member may submit to the Chair additional questions for the record to be answered by the witnesses who have appeared. Each member shall provide a copy of the questions in an electronic format to the Committee no later than 10 business days following a hearing. The Chair shall transmit all questions received from members of the Committee to the appropriate witnesses and include the transmittal letter and the responses from the witnesses in the hearing record. After consultation with the Ranking Member, the Chair is authorized to close the hearing record no earlier than 15 business days from the date the questions were transmitted to the appropriate witnesses.

(g) Hearings of the Committee shall be called to order and presided over by the Chair or, in the Chair's absence, by a member designated by the Chair to carry out such duties.

(h) Oaths.—The Chair of the Committee, or a member designated by the Chair, may administer oaths to any witness before the Committee. The Chair or his or her designee may administer the fol-

lowing oath to all witnesses prior to receiving testimony: “Do you solemnly swear or affirm, under penalty of law, that the testimony you are about to give is the truth, the whole truth, and nothing but the truth, so help you God?”

(i) Claims of Privilege.—Claims of common-law privilege made by witnesses in hearings, or by interviewees in investigations or inquiries, are applicable only at the discretion of the Chair, subject to appeal to the Committee.

RULE 4. OPEN PROCEEDINGS

(a) Meetings for the transaction of business and hearings of the Committee shall be open to the public, including radio, television, and still photography coverage, unless closed in accordance with clause 2(g) of rule XI of the Rules of the House of Representatives.

(b) The audio and video coverage of Committee proceeding permitted under clause 4 of rule XI of the Rules of the House of Representatives shall apply to the Committee.

RULE 5. REPORTS

(a) Approval of Official Committee Reports.—Any report completed pursuant to section 104(f)(5) of H. Res. 6 (116th Congress) that purports to express the views, findings, conclusions, or recommendations of the Committee must be approved by a majority vote of the Committee at a meeting at which a quorum is present, in accordance with Committee Rule 7(a)(3). The total number of votes cast for and against, and the names of those voting for and against, shall be included in the Committee report on the matter.

(b) Notice of Committee Reports.—Any report described in (a) shall not be considered in the Committee unless the proposed report has been available to the members of the Committee for at least three business days before consideration of such report in the Committee.

(c) Additional Views.—If, at the time of approval of a report, a member of the Committee gives notice of intent to file supplemental, minority, additional, or dissenting views for inclusion in the report, all members of the Committee shall be entitled to no less than two business days after such notice to file such views following clause 2(l) of rule XI and clause 3(a)(1) of rule XIII of the Rules of the House.

(d) Availability of Publications.—Pursuant to clause 2(e)(4) of rule XI of the Rules of the House, the Committee shall make its publications available in electronic form to the maximum extent feasible. Pursuant to sections 104(f)(5) and 104(f)(6) of H. Res. 6 (116th Congress), the Committee shall make its publications available to the general public in widely accessible formats not later than 30 calendar days following the respective dates for completion.

RULE 6. COMMITTEE RECORDS

(a) Availability.—Documents reflecting the proceedings of the Committee shall be made publicly available in electronic form on the Committee’s website and in the Committee office for inspection by the public, as provided in clause 2(e) of rule XI of the Rules of the House of Representatives, within 48 hours of such recorded

vote after each meeting has adjourned, including a record showing those present at each meeting; and a record of the vote on any question on which a recorded vote is demanded, including a description of the motion, order, or other proposition, the name of each member voting for and each member voting against such motion, order, or proposition, and the names of those members of the Committee present but not voting.

(b) *Archived Records.*—The records of the Committee deposited at the National Archives shall be made available for public use in accordance with rule VII of the Rules of the House. The Chair shall notify the Ranking Member of any decision, pursuant to clause 3(b)(3) or clause 4(b) of such rule, to withhold a record otherwise available. Upon written request of any member of the Committee, the Chair shall present the matter to the Committee for a determination, which shall be subject to the same requirements for conduct of Committee business under Committee Rule 2.

RULE 7. QUORUMS AND RECORDED VOTES; POSTPONEMENT OF VOTES

(a) *Establishment of a Quorum.*—

(1) For the purpose of taking testimony and receiving evidence, no fewer than two members of the Committee shall constitute a quorum.

(2) A majority of the members of the Committee shall constitute a quorum for those actions for which the Rules of the House of Representatives require a majority quorum.

(3) A majority of the members of the Committee shall constitute a quorum for issuing an official Committee report pursuant to Rule 5 of the Committee rules and section 104(f)(5) of H. Res. 6 (116th Congress).

(4) For the purposes of taking any other action, one-third of the members of the Committee shall constitute a quorum.

(b) *Recorded Votes.*—A recorded vote may be demanded by one-fifth of the members present.

(c) *Postponement of Votes.*—Pursuant to clause 2(h)(4) of the Rules of the House, the Chair, after consultation with the Ranking Member, may postpone further proceedings when a recorded vote is ordered on the question of approving any measure or matter or adopting an amendment and may resume proceedings on a postponed vote at any time after reasonable notice to Members by the Clerk or other designee of the Chair. When proceedings resume on a postponed question, notwithstanding any intervening order for the previous question, an underlying proposition shall remain subject to further debate or amendment to the same extent as when the question was postponed.

RULE 8. COMMITTEE STAFF

(a) Professional and other staff of the Committee are subject to the provisions of clause 9 of rule X of the Rules of the House of Representatives.

(b) *Majority Staff.*—The Chair shall appoint and determine the remuneration of, and may remove, the employees of the Committee not assigned to the minority. The staff of the Committee not assigned to the minority shall be under the general supervision and direction of the Chair, who shall establish and assign the duties

and responsibilities of such staff members and delegate such authority as he or she determines appropriate.

(c) **Minority Staff.**—The Ranking Member shall appoint and determine the remuneration of, and may remove, the staff assigned to the minority within the budget approved for such purposes. The staff assigned to the minority shall be under the general supervision and direction of the Ranking Member, who may delegate any authority he or she determines appropriate.

(d) The Chair and Ranking Member have the right to secure one or more detailees to assist with the work of the Committee.

RULE 9. BUDGET

(a) The Chair, in consultation with the Ranking Member, shall prepare a budget providing amounts for staff, committee travel, field hearings, investigation, and other expenses of the Committee. Funds authorized for the Committee as provided in clause 6 of rule X are for expenses incurred in the activities of the Committee.

(b) Consistent with clause 9 of rule X, the Chair shall designate an amount equal to 1/3 of the amount provided to the Committee in the primary expense resolution adopted by the House of Representatives to be under the direction of the Ranking Member for the compensation of the minority staff, travel expenses of minority members and staff, and minority office expenses. All expenses of minority members and staff shall be paid for out of the amount so set aside.

RULE 10. TRAVEL

(a) The Chair may authorize travel for any member and any staff member of the Committee in connection with activities or subject matters under the general jurisdiction of the Committee. Travel to be reimbursed from funds set aside for the Committee for any member of staff member shall be paid only upon the prior authorization of the Chair. Before such authorization is granted, there shall be submitted to the Chair in writing the following:

- (1) The purpose of the travel.
- (2) The dates during which the travel is to occur.
- (3) The names of the states or countries to be visited and the length of time to be spent in each.
- (4) An agenda of anticipated activities.
- (5) The names of members and staff of the Committee for whom the authorization is sought.

(b) Members and staff of the Committee shall make a written report to the Chair on any travel they have conducted under this subsection, including a description of their itinerary, expenses, and activities, and of pertinent information gained as a result of such travel.

(c) Members and staff of the Committee performing authorized travel on official business shall be governed by applicable laws, resolutions, and regulations of the House and of the Committee on House Administration.

RULE 11. WEBSITE

The Chair shall maintain an official Committee website for the purpose of carrying out the official responsibilities of the Com-

mittee, including communicating information about the Committee's activities. The Ranking Member may maintain a minority website. To the maximum extent feasible, the Committee shall make its publications available in electronic form on the official Committee website maintained by the Chair.

SUMMARY OF COMMITTEE ACTIVITIES

COMMITTEE HEARINGS

Generation Climate: Young Leaders Urge Climate Action Now

On Thursday, April 4, 2019, the Select Committee on the Climate Crisis held a hearing entitled "Generation Climate: Young Leaders Urge Climate Action Now." The purpose of this hearing was to hear from young leaders who are urging policymakers to take climate action now and finally address the climate crisis. The Committee received testimony from the following witnesses:

- Lindsay Cooper, Policy Analyst, Office of the Governor of Louisiana, Office of Coastal Activities;
- Aji Piper, Plaintiff, *Juliana v. United States*;
- Chris J. Suggs, Student and activist;
- Melody Zhang, Climate Justice Campaign Coordinator, Sojourners, and Co-Chair, Young Evangelicals for Climate Action

Solving the Climate Crisis: Drawing Down Carbon and Building Up the American Economy

On Tuesday, April 30, 2019, the Select Committee on the Climate Crisis held a hearing entitled "Solving the Climate Crisis: Drawing Down Carbon and Building Up the American Economy." The purpose of this hearing was to examine the latest climate science and what it says about reducing emissions to avert the worst impacts of climate change; key policy options to achieve those emissions reductions; and opportunities to strengthen the American economy while tackling climate change. The Committee received testimony from the following witnesses:

- David Foster, Distinguished Associate, Energy Futures Initiative;
- Christopher Guith, Acting President and CEO, U.S. Chamber of Commerce, Global Energy Institute;
- Hal Harvey, CEO, Energy Innovation;
- Dr. Diana Liverman, Regents Professor of Geography and Development, University of Arizona

Creating a Climate Resilient America

On Thursday, May 23, 2019, the Select Committee on the Climate Crisis held a hearing entitled "Creating a Climate Resilient America." The purpose of this hearing was to examine the costs and impacts of climate change and how our communities, ecosystems, and food system can be more resilient in the face of a changing climate. The Committee received testimony from the following witnesses:

- Dr. Noah Diffenbaugh, Kara J Foundation Professor and Kimmelman Family Senior Fellow, Stanford University;

- Dr. Rachel Cleetus, Policy Director, Climate and Energy Program, Union of Concerned Scientists;
- The Honorable Keith Hodges, Virginia State Delegate, 98th District of Virginia;
- Matt Russell, Farmer, and Executive Director, Iowa Interfaith Power & Light

Solving the Climate Crisis: Ramping Up Renewables

On Thursday, June 13, 2019, the Select Committee on the Climate Crisis held a hearing entitled “Solving the Climate Crisis: Ramping Up Renewables.” The purpose of this hearing was to examine opportunities to expand deployment of wind and solar energy sources. The Committee received testimony from the following witnesses:

- Abigail Ross Hopper, Esq., President and CEO, Solar Energy Industries Association;
- Tom Kiernan, President and CEO, American Wind Energy Association;
- Christine Tezak, Managing Director—Research, ClearView Energy Partners, LLC;
- Katherine Hamilton, Chair, 38 North Solutions

Solving the Climate Crisis: Cleaning Up Heavy Duty Vehicles, Protecting Communities

On Tuesday, July 16, 2019, the Select Committee on the Climate Crisis held a hearing entitled “Solving the Climate Crisis: Cleaning Up Heavy Duty Vehicles, Protecting Communities.” The purpose of this hearing was to focus on ways to reduce emissions from heavy duty vehicles. The Committee received testimony from the following witnesses:

- Angelo Logan, Campaign Director, The Moving Forward Network;
- Michelle Romero, National Director, Green for All;
- Ryan Popple, President & CEO, Proterra, Inc.;
- Tony Satterthwaite, Vice President—Cummins, and President—Cummins Distribution Business

Creating a Climate Resilient America: Business Views on the Costs of the Climate Crisis

On Thursday, July 25, 2019, the Select Committee on the Climate Crisis held a hearing entitled “Creating a Climate Resilient America: Business Views on the Costs of the Climate Crisis.” The purpose of this hearing was to examine the risks, costs, and opportunities businesses, investors, and the economy face as a result of the climate crisis. The Committee received testimony from the following witnesses:

- Paula DiPerna, Special Advisor, CDP North America;
- Garvin Jabusch, Chief Investment Officer, Green Alpha Advisors, LLC;
- James K. Walker, Executive Vice President, South Louisiana Bank;
- Francis Bouchard, Group Head of Public Affairs & Sustainability, Zurich Insurance Group

Colorado's Roadmap for Clean Energy Action: Lessons From State and Local Leaders

On Thursday, August 1, 2019, the Select Committee on the Climate Crisis held a field hearing at the University of Colorado in Boulder, Colorado entitled "Colorado's Roadmap for Clean Energy Action: Lessons from State and Local Leaders." The purpose of this hearing was to examine Colorado's state and local efforts to expand clean energy deployment. The Committee received testimony from the following witnesses:

Panel 1

- The Honorable Jared Polis, Governor, State of Colorado

Panel 2

- The Honorable Suzanne Jones, Mayor, City of Boulder, Colorado;
- The Honorable Wade Troxell, Mayor, City of Fort Collins, Colorado;
- Cary Weiner, State Energy Specialist, Colorado State University (CSU) Extension, and Director, Rural Energy Center, CSU;
- Chris Wright, CEO, Liberty Oilfield Services;
- Heidi VanGenderen, Chief Sustainability Officer, University of Colorado-Boulder

Solving the Climate Crisis: Manufacturing Jobs for America's Workers

On Tuesday, September 10, 2019, the Select Committee on the Climate Crisis held a hearing entitled "Solving the Climate Crisis: Manufacturing Jobs for America's Workers." The purpose of this hearing was to focus on expanding job opportunities for America's workers in clean vehicle and clean energy technology manufacturing. The Committee received testimony from the following witnesses:

- Zoe Lipman, Director, Vehicles and Advanced Transportation Program, BlueGreen Alliance;
- Josh Nassar, Legislative Director, International Union, United Automobile, Aerospace, and Agricultural Implement Workers of America (UAW)
- Tarak Shah, Consultant, and Former Chief of Staff, Under Secretary for Science and Energy, U.S. Department of Energy;
- Edward Stones, Global Business Director, Energy and Climate Change, Dow Inc.

Voices Leading the Next Generation on the Global Climate Crisis (Joint Hearing With the House Foreign Affairs Subcommittee on Europe, Eurasia, Energy, and the Environment)

On Wednesday, September 18, 2019, the Select Committee on the Climate Crisis held a joint hearing with the House Foreign Affairs Subcommittee on Europe, Eurasia, Energy, and the Environment entitled "Voices Leading the Next Generation on the Global Climate Crisis." The purpose of this hearing was to hear directly from young people who are leading the way on climate action. The Committee received testimony from the following witnesses:

- Greta Thunberg, Founder, Fridays for the Future;
- Jamie Margolin, Co-Founder, This is Zero Hour, Plaintiff, Piper v. State of Washington;

- Vic Barrett, Founder, Alliance for Climate Education, Plaintiff, Juliana v. United States
- Benji Backer, President, American Conservation Coalition

Solving the Climate Crisis: Reducing Industrial Emissions Through U.S. Innovation

On Thursday, September 26, 2019, the Select Committee on the Climate Crisis held a hearing entitled “Solving the Climate Crisis: Reducing Industrial Emissions Through U.S. Innovation.” This hearing examined innovative technologies and policies to enable emissions reductions in the industrial sector. The Committee received testimony from the following witnesses:

- David Gardiner, President, David Gardiner and Associates, and Executive Director, Combined Heat and Power Alliance
- Dr. Jeremy Gregory, Research Scientist and Executive Director, Concrete Sustainability Hub, MIT, *on behalf of* Portland Cement Association
- Brad Crabtree, Vice President, Carbon Management, Great Plains Institute, *on behalf of* Carbon Capture Coalition
- Cate Hight, Principal, Rocky Mountain Institute, *on behalf of* Rocky Mountain Institute

Solving the Climate Crisis: Cleaner, Stronger Buildings

On Thursday, October 17, 2019, the Select Committee on the Climate Crisis held a hearing entitled “Solving the Climate Crisis: Cleaner, Stronger Buildings.” The hearing examined key strategies to reduce emissions from and enhance the resilience of new and existing buildings. The Committee received testimony from the following witnesses:

- Anica Landreneau, Senior Principal, Director of Sustainable Design, Hellmuth, Obara & Kassabaum, P.C. (HOK);
- Kara Saul Rinaldi, Vice President of Government Affairs & Policy, Building Performance Association;
- James Rutland, President, Lowder New Homes, *on behalf of* National Association of Home Builders;
- Dr. Khalil Shahyd, Senior Policy Advocate, Natural Resources Defense Council;
- Roy Wright, President, Insurance Institute for Business and Home Safety

Solving the Climate Crisis: Natural Solutions to Cutting Pollution and Building Resilience

On Tuesday, October 22, 2019, the Select Committee on the Climate Crisis held a hearing entitled “Solving the Climate Crisis: Natural Solutions to Cutting Pollution and Building Resilience.” The hearing examined the potential of natural climate solutions to help meet emissions reduction targets; improved land management actions and policies to reduce greenhouse gas emissions from the land sector; opportunities to increase carbon storage in landscapes and wetlands; and the co-benefits of nature-based climate strategies to create resilient ecosystems and communities. The Committee received testimony from the following witnesses:

- Dr. Joe Fargione, Science Director—North America Region, The Nature Conservancy;

- Frankie Myers, Vice Chairman, Yurok Tribal Council, The Yurok Tribe;
- Dr. Jennifer Howard, Director, Climate and Oceans, Conservation International;
- The Honorable Alexander “Andy” Karsner, Executive Chairman, Elemental Labs

Solving the Climate Crisis: Opportunities in Agriculture

On Wednesday, October 30, 2019, the Select Committee on the Climate Crisis held a hearing entitled “Solving the Climate Crisis: Opportunities in Agriculture.” The hearing explored ways that agriculture can be a part of the climate solution by implementing climate smart agricultural practices to reduce greenhouse gas emissions and increase soil health and carbon sequestration in agricultural lands, helping to make farms more resilient to the impacts of climate change. The Committee received testimony from the following witnesses:

- Fred Yoder, 4th Generation Farmer, Co-Chair, Solutions from the Land;
- Christina Owens, Senior Director, Agriculture Funding & Communication, Danone North America, PBC;
- Dr. Jennifer Moore-Kucera, Climate Initiative Director, American Farmland Trust;
- Viral Amin, Vice President for Commercial Development & Strategy, DTE Energy Resources

Member Day

On Thursday, November 14, the Select Committee on the Climate Crisis held a Member Day to hear testimony from House members regarding their climate policy ideas. At the hearing, 26 Members testified and an additional 10 submitted statements for the record.

Creating a Climate Resilient America: Reducing Risks and Costs

On Wednesday, November 20, 2019, the Select Committee on the Climate Crisis held a hearing entitled “Creating a Climate Resilient America: Reducing Risks and Costs. The hearing explored the climate risk information, standards, and tools that communities need to become more resilient to the impacts of climate change and to reduce the risks and costs of climate-driven disasters. The Committee received testimony from the following witnesses:

- Chad Berginnis, Executive Director, Association of State Floodplain Managers;
- The Honorable Craig Fugate, Principal, Craig Fugate Consulting, and Former FEMA Administrator;
- The Honorable Alice C. Hill, Senior Fellow for Climate Change Policy, Council on Foreign Relations

Creating a Climate Resilient America: Smart Finance for Strong Communities

On Wednesday, December 11, 2019, the Select Committee on the Climate Crisis held a hearing entitled “Creating a Climate Resilient America: Smart Finance for Strong Communities.” The hear-

ing explored the actions Congress can take to better leverage federal funds, private capital, and insurance to increase resilience before disasters and accelerate recovery in their aftermath, while ensuring that no community is left behind. The Committee received testimony from the following witnesses:

- Damon Burns, Executive Director, Finance Authority of New Orleans;
- Mark Gaffigan, Managing Director, Government Accountability Office;
- Marion Mollegan McFadden, Senior Vice President for Policy & Senior Advisory for Resilience Enterprise Community Partners;
- Chuck Wemple, Executive Director, Houston-Galveston Area Council

Creating a Climate Resilient America: Overcoming the Health Risks of the Climate Crisis

On Wednesday, February 5, 2020, the Select Committee on the Climate Crisis held a hearing entitled “Creating a Climate Resilient America: Overcoming the Health Risks of the Climate Crisis.” The hearing explored the health risks of the climate crisis and solutions to address them. The Committee received testimony from the following witnesses:

- The Honorable Gina McCarthy, President and Chief Executive Officer, Natural Resources Defense Council;
- Dr. Aparna Bole, Chair, AAP Council on Environmental Health, *on behalf of* American Academy of Pediatrics;
- Arturo S. Rodriguez, President Emeritus, *on behalf of* United Farm Workers, UFW Foundation;
- Derrick Hollie, President, Reaching America (**Mr. Hollie was unable to testify in person due to illness; his testimony was submitted for the record*)

Solving the Climate Crisis: Building a Vibrant and Just Clean Energy Economy

On Tuesday, July 28, 2020, the Select Committee on the Climate Crisis held a virtual hearing entitled “Solving the Climate Crisis: Building a Vibrant and Just Clean Energy Economy.” The hearing focused on ensuring a just, equitable transition to a net-zero clean energy economy that creates good-paying, high-quality jobs. The Committee received testimony from the following witnesses:

- Dr. Ana Baptista, Assistant Professor of Professional Practice & Associate Director of the Tishman Environment and Design Center, The New School, *on behalf of* New Jersey Environmental Justice Alliance and the Equitable and Just Climate Forum;
- Jason Walsh, Executive Director, BlueGreen Alliance;
- Michael Shellenberger, Founder & President, Environmental Progress;
- Beth Soholt, Executive Director, Clean Grid Alliance, *on behalf of* American Council on Renewable Energy and Americans for a Clean Energy Grid

Creating a Climate Resilient America: Strengthening the U.S.
Financial System and Expanding Economic Opportunity

On Thursday, October 1, 2020, the Select Committee on the Climate Crisis held a virtual hearing entitled “Creating a Climate Resilient America: Strengthening the U.S. Financial System and Expanding Economic Opportunity.” The purpose of this hearing was to explore the ways that the climate crisis exacerbates economic harm and injustice and identify strategies to strengthen financial to systems and enhance access to capital to support community resilience and economic recovery. The Committee received testimony from the following witnesses:

Panel 1

- The Honorable Rostin Behnam, Commissioner, Commodity Futures Trading Commission

Panel 2

- Dr. Joanna Syroka, Senior Underwriter and Director of New Markets, Fermat Capital Management, LLC;
- Rich Powell, Executive Director, ClearPath;
- Maggie Monast, Director of Working Lands, Environmental Defense Fund

COMMITTEE ROUNDTABLES

In addition to official hearings, the Select Committee on the Climate Crisis held private, Member-level roundtables to hear additional perspectives and discuss policies with invited experts.

Roundtable Discussion With Los Angeles Mayor Eric Garcetti

On Wednesday, May 22, 2019, the Select Committee on the Climate Crisis held a roundtable with Los Angeles Mayor Eric Garcetti. Mayor Garcetti discussed the City’s updated Sustainability Plan, released in April 2019, and his policies to reduce pollution and adapt to the impacts of climate change. The Committee was briefed by the following witness:

- The Honorable Eric Garcetti, Mayor, Los Angeles, California

Roundtable on Electricity Transmission Infrastructure

On Thursday, June 20, 2019, the Select Committee on the Climate Crisis held a roundtable focused on electricity transmission infrastructure. The roundtable focused on the need to upgrade and expand America’s electricity infrastructure and key challenges, including planning, cost allocation, and siting. The Committee was briefed by the following witnesses:

- Donnie Colston, Director, Utility Department, International Brotherhood of Electrical Workers;
- The Honorable Suede Kelly, Partner, Jenner & Block, and Former FERC Commissioner;
- Rob Gramlich, Founder and President, Grid Strategies LLC;
- The Honorable Philip D. Moeller, Executive Vice President, Business Operations Group and Regulatory Affairs, Edison Electric Institute, and Former FERC Commissioner

Roundtable on Electricity Market Design

On Wednesday, June 26, 2019, the Select Committee on the Climate Crisis held a roundtable focused on electricity market design and the relevance to federal climate policy. The Committee was briefed by the following witnesses:

- The Honorable Norman Bay, Partner, Wilkie Farr & Gallagher LLP, and Former FERC Chairman;
- Dr. Jennifer Chen, Senior Counsel on Federal Energy Policy, Nicholas Institute, Duke University;
- Brad Markell, Executive Director, Industrial Union Council, AFL-CIO

Roundtable on the Climate Crisis in the Great Lakes Region

On Wednesday, August 14, 2019, the Select Committee on the Climate Crisis held a public, regional roundtable at the Adler Planetarium in Chicago, Illinois focused on the impacts of climate change in the Great Lakes region. The Committee was briefed by the following witnesses:

- Margaret Garascia, Senior Manager, Elevate Energy, which administers the Illinois Solar for All program;
- Elena Grossman, BRACE-Illinois Program Director, University of Illinois at Chicago, School of Public Health;
- Dr. Aaron Packman, Professor, Civil and Environmental Engineering, Northwestern University, Water Lead, Manufacturing Science and Engineering Initiative, Argonne National Laboratory;
- Karen Weigert, Vice President, Slipstream, Inc., and Former Director of Sustainability, City of Chicago, Illinois

Roundtable on Nuclear Power

On Friday, September 20, 2019, the Select Committee on the Climate Crisis held a roundtable on nuclear power. The roundtable examined opportunities and challenges related to the existing U.S. nuclear fleet and next-generation nuclear power technologies. The Committee was briefed by the following witnesses:

- Rob Cowin, Director of Government Affairs, Climate & Energy Program, Union of Concerned Scientists;
- Kodwo Ghartey-Tagoe, State President, South Carolina, Duke Energy;
- The Honorable Colette Honorable, Partner, Reed Smith LLC, Former FERC Commissioner, and Former Chairman, Arkansas Public Service Commission;
- Dr. Jesse Jenkins, Assistant Professor, Department of Mechanical & Aerospace Engineering, Andlinger Center for Energy & Environment, Princeton University

Roundtable Meeting With Tribal Leaders

On Thursday, February 13, 2020, the Select Committee on the Climate Crisis held a meeting with National Congress of American Indian (NCAI) tribal leaders on climate action efforts of tribal nations. The Committee was briefed by the following witnesses:

- Fawn Sharp, President, Quinault Indian Nation, and President, National Congress of American Indians (NCAI);

- Stephen Roe Lewis, Governor, Gila River Indian Community, and Co-Chair, NCAI Climate Action Task Force;
- Clinton Lageson, Treasurer, Kenaitze Indian Tribe, and NCAI Treasurer

Virtual Roundtable on COVID–19 and Air Pollution

On Friday, April 17, 2020, the Select Committee on the Climate Crisis held a virtual roundtable to examine the relationship between historical exposure to air pollution and COVID–19 mortality in the United States. The Committee was briefed by the following witness:

- Dr. Francesca Dominici, Professor of Biostatistics, Population Health and Data Science, and Co-Director, Data Science Initiative, Harvard University

Virtual Roundtable on COVID–19 and Disasters

On Thursday, May 21, 2020, the Select Committee on the Climate Crisis held a virtual roundtable on ways to help state and local governments protect their communities from climate-fueled threats—including wildfires, severe storms, hot summer conditions, and a hurricane season that is predicted to be more active than usual—as they continue to respond to the public health crisis posed by the COVID–19 pandemic. The Committee was briefed by the following witnesses:

- The Honorable Sharon Weston Broome, Mayor, Baton Rouge, Louisiana, President of East Baton Rouge Parish, and Co-Chair of the Mississippi River Cities & Town Initiative
- The Honorable Craig Fugate, Principal, Craig Fugate Consulting, and former FEMA Administrator

COMMITTEE AUTHORIZED TRAVEL

Chair Kathy Castor Trip to South Carolina

On Monday, May 13, 2019, the Select Committee on the Climate Crisis' Chair Kathy Castor traveled to South Carolina's 1st Congressional District. Her visit included visits and tours examining the issues of resiliency, infrastructure, government funding, and flooding in the hospital district of Sullivan Island, S.C. As part of the Chair's visit to Sullivan Island, S.C., she met with the following people:

- The Honorable Joe Cunningham, Member of Congress
- The Honorable Pat O'Neil, Mayor, Sullivan Island, S.C.
- Andy Benke, Town Administrator, Sullivan Island, S.C.
- M. Richard DeVoe, Executive Director, South Carolina Sea Grant Consortium

Chair Kathy Castor Trip to Southern California

On Thursday, May 30 and Friday, May 31, 2019, the Select Committee on the Climate Crisis' Chair Kathy Castor traveled to Southern California. Her visit included a discussion with the Scripps Institution of Oceanography and U.C. San Diego; a tour of the Proterra EV bus factory; a visit to Navy Base, Point Mugu to discuss climate change resiliency and renewable energy & efficiency; a roundtable discussion at the Port of Hueneme; and a tour

of Houweling's Tomatoes. As part of the Chair's trip to Southern California, she met with the following people:

- The Honorable Mike Levin, Member of Congress
- The Honorable Julia Brownley, Member of Congress
- The Honorable Grace Napolitano, Member of Congress
- Dr. Margaret Leinen: U.C. San Diego Vice Chancellor for Marine Sciences, Director of Scripps Institution of Oceanography, and Dean of the School of Marine Sciences
- Dr. David Victor, Professor; Co-director, Laboratory on International Law and Regulation, School of Global Policy & Strategy, U.C. San Diego
- Dr. Kimberly Prather, Professor, Climate, Atmospheric Science, & Physical Oceanography (CASPO), Scripps Institution of Oceanography, U.C. San Diego
- Dr. Mark Merrifield, Director, Center for Climate Change Impacts and Adaptations (CCCIA), Scripps Institution of Oceanography, U.C. San Diego
- Dr. Dan Cayan, Research Meteorologist, Climate, Atmospheric Science, & Physical Oceanography (CASPO), Scripps Institution of Oceanography, U.C. San Diego
- Jason Anderson, President and CEO, Cleantech San Diego
- Brian Miller, Proterra Inc.
- CAPT Jeff Chism, Naval Base Ventura County (NBVC) Commanding Officer
- LCDR Brian Christner, NBVC Acting Public Works Officer
- Daniel Shide, NBVC Environmental Program Director
- Amanda Fagan, NBVC Community Planning and Liaison Officer and encroachment specialist
- Dave Masias, NBVC Energy Program Director
- Valerie Vartanian, NBVC Natural Resources Manager
- Kristin Decas, CEO, Port of Hueneme
- Jonathan Parfrey, Executive Director, Climate Resolve
- Dave Pedersen, General Manager, Las Virgenes Municipal Water District
- Karen Schmidt, Regional Affairs Manager, Clean Power Alliance, Regional Affairs Manager
- Alyssa Mann, Project Director, Disaster Resilience, The Nature Conservancy
- Kevin Doran, CEO, Houweling's Tomatoes
- Jaymee McInerney, Brand Manager, Houweling's Tomatoes
- Ben Vazquez, Site General Manager, Houweling's Tomatoes

Chair Kathy Castor Trip to Coastal Virginia

On Monday, July 8 and Tuesday, July 9, 2019, the Select Committee on the Climate Crisis' Chair Kathy Castor traveled to coastal Virginia. Her visit included discussions and site visits around resiliency and climate change in the Hampton Roads region of Virginia, as well as a visit to the Virginia Museum of Science in Richmond Virginia. As part of the Chair's trip to coastal Virginia, she met with the following people:

- The Honorable A. Donald McEachin, Member of Congress
- The Honorable Elaine Luria, Member of Congress
- The Honorable Bobby Scott, Member of Congress
- Andria McClellan, Chairwoman of Coastal Resilience Subcommittee, Hampton Roads Planning District Commission

- Skip Stiles, Executive Director, Wetlands Watch
- Kit Choep, Port of Virginia
- Dustin Rinehart, Port of Virginia
- Brian Ballard, U.S. Navy
- Robb Braidwood, Deputy Coordinator of Emergency Management, City of Chesapeake, Virginia
- Kyle Spencer, Deputy Resiliency Officer, City of Norfolk, Virginia
- Tom Leahy, Deputy City Manager, Virginia Beach, Virginia
- Ann Phillips, Special Assistant to the Governor, State of Virginia
- Jeremy S. Hoffman, Ph.D., Chief Scientist, Science Museum of Virginia

Select Committee Member Trip to Colorado

On Tuesday, July 30 and Wednesday, July 31, 2019, Members of the Select Committee on the Climate Crisis traveled throughout Colorado on site visits to learn more about the research of scientists at National Oceanic and Atmospheric Administration (NOAA) and federally-funded laboratories. This included a site visit to NOAA's Earth System Research Library in Boulder, CO; a visit to the Cooperative Institute for Research in Environmental Sciences (CIRES) at the University of Colorado in Boulder, CO; a visit to the National Renewable Energy Laboratory (NREL) in Golden, CO; a visit to the National Wind Technology Center at NREL's Flatirons Campus; and a visit to the National Center for Atmospheric Research (NCAR) in Boulder, CO. As part of the Members' trip to Colorado, they met with the following people:

- The Honorable Jared Polis, Governor, State of Colorado
- The Honorable Bill Ritter, Former Governor, State of Colorado
- David Fahey, Director, Chemical Sciences Division, NOAA Earth System Research Library
- Sarah Venema, Outreach Specialist, NOAA
- Brian Copello, Executive Director, Communications Technology Laboratory, National Institutes for Science and Technology (NIST)
- Dr. Keith Gremban, Director, Institute for Telecommunication Sciences, National Telecommunications and Information Administration
- Rich Lataitis, Associate Director, Physical Sciences Division, NOAA ESRL
- Marty Hoerling, Meteorologist, Physical Sciences Division, NOAA ESRL
- Roger Pulwarty, Scientist, Physical Sciences Division, NOAA ESRL
- James Butler, Director, Global Monitoring Division, NOAA ESRL
- Waleed Abdalati, Director, CIRES
- Caroline Alden, Senior Research Scientist, CIRES
- Noah Fierer, Professor of Ecology and Evolutionary Biology
- Jennifer Balch, Associate Professor of Geography
- Derek Passarelli, Director, Golden Field Office, U.S. Department of Energy
- Peter Green, Deputy Laboratory Director, Science and Technology, NREL

- Juan Torres, Associate Lab Director, Energy Systems Integration, NREL
- Jao Van De Lagemaat, Center Director II—Technical, NREL
- Mark Davis, Director, Biosciences Center, NREL
- Johnney Green, Associate Laboratory Director for Mechanical and Thermal Engineering Sciences
- Tim Barnes, Science Education Specialist, NCAR
- Antonio J. Busalacchi, President, NCAR
- David Gochis, Scientist, NCAR
- Olga Wilhelmi, Project Scientist, NCAR

Chair Kathy Castor Trip to Gainesville, Florida

On Monday, August 12, 2019, the Select Committee on the Climate Crisis' Chair Kathy Castor traveled to Gainesville, Florida. Her visit consisted of a tour of a cattle and timber farm, a panel discussion on the needs of farmers in Florida in the face of climate change, and a forum hosted by the University of Florida on agriculture and forestry in a changing climate. As part of the Chair's trip to Gainesville, she met with the following people:

- Lynetta Usher Griner, Co-Chair, Florida Climate Smart Agriculture Work Group
- Jim Strickland, Co-Chair, Florida Climate Smart Agriculture Work Group
- Dr. Senthold Asseng, Director, Florida Climate Institute
- Dr. Lisa Conti, Director of Strategic Initiatives, Florida Department of Agriculture and Consumer Services
- Frank Giles, Editor, Florida Growers magazine
- Dr. Nick Place, Dean and Director, University of Florida/IFAS Extension
- Dr. Jack Payne, Senior Vice President for Agriculture and Natural Resources, University of Florida
- Ernie Shea, President, Solutions from the Land
- Fred Yoder, Co-chair of the Board of Directors, Solutions from the Land
- Don Bennink, Dairy farmer
- Heath Davis, Cedar Key Seafarms
- Gray Drummond, Florida Outdoors Experience
- Ken Griner, Timber and cattle rancher
- Korey Griner, Timber and cattle rancher
- Don Quincey, Cattle rancher
- Dr. Carolyn Mutter, International Program Manager, The Agricultural Model Intercomparison & Improvement Project, Colombia University Earth Institute Center for Climate Systems Research
- Bill Hohenstein, Director, Office of Energy and Environment Policy, Office of the Chief Economist, USDA
- Dr. Wendy-Lin Bartels, University of Florida School of Forest Resources and Conservation
- Gary Wishnatski, strawberry farmer
- Randall Dasher, peanuts and veggie farmer
- Sandy Stein, plant nursery
- Kirk Brock, row crop farmer

Chair Kathy Castor Trip to Illinois and Michigan

From Tuesday, August 13, 2019 through Friday, August 16, 2019, the Select Committee on the Climate Crisis' Chair Kathy Castor traveled to Illinois and Michigan. Her visit included discussions and site visits examining the economic impacts of climate change, and the growing costs of inaction in the Great Lakes region; electric buses and vehicles; and environmental justice. As part of the Chair's trip to Illinois and Michigan, she met with the following people:

- The Honorable Sean Casten, Member of Congress
- The Honorable Debbie Dingell, Member of Congress
- The Honorable Andy Levin, Member of Congress
- The Honorable Haley Stevens, Member of Congress
- The Honorable Rashida Tlaib, Member of Congress
- Bob Keefe, E2, Executive Director
- Jon Sack, NRDC
- Gen. John Castellaw, USMC–RET, E2
- Annette Beitel, E2, President, Future Energy Enterprises
- Ellington Ellis, Co-founder and Managing Partner, Global Battery Solutions
- Milton Pinskey, CEO, Banner Realty
- Randy Bell, Director, Global Energy Center, Atlantic Council
- Troy Clarke, CEO, Navistar
- Walter Borst, CFO, Navistar
- Darren Gosbee, VP, Advanced Engineering, Navistar
- Jennifer Kelly, Research Department Head, UAW
- Steve Beers, Research Analyst, UAW
- Jason Wade, Research Analyst, UAW
- Sergio Espinosa, Government Affairs Specialist, IBEW
- Austin Keyser, Director of Political and Legislative Affairs, IBEW
- Art Kroll, Assistant to District 2 Director, Steelworkers
- Zoe Lipman, Director, Vehicles and Advanced Transportation Program, BlueGreen Alliance
- Frank Houston, BlueGreen Alliance
- James Chen, Rivian
- Mark Nabong, Natural Resources Defense Council
- Nick Moroz, Assistant Director of Entrepreneurial Practice at Center for Entrepreneurship, University of Michigan, and Commissioner, City of Plymouth, Michigan
- Michelle Martinez, Michigan Environmental Justice Coalition Coordinator
- Theresa Landrum, Detroit-based environmental justice leader
- Darryl Jordan, East Michigan Environmental Action Council
- Gloria Lowe, We Want Green Too

Chair Kathy Castor Trip to New York, New York

From Saturday, September 22, 2019 through Monday, September 23, 2019, the Select Committee on the Climate Crisis' Chair Kathy Castor traveled to New York City, NY. Chair Castor participated in the United Nation's Climate Action Summit, speaking at the panel "Advancing Buildings and Sustainable Urban Infrastructure," which was part of the session "Partnerships for Ambition: Unlocking the Full Potential of Local Climate Action." Her visit

also included attending additional side events of the summit and discussions with international climate, finance and clean energy experts. As part of the Chair's trip to New York, she met with the following people:

- Dirk Forrister, CEO, International Emissions Trading Association
- Jonathan Grant, Vice-Chair, International Emissions Trading Association
- Kelley Kizzier, Associate Vice President, Environmental Defense Fund
- Lord Adair Turner, Chairman, Energy Transitions Commission

Chair Kathy Castor Trip to South Florida

From Thursday, November 7, 2019 through Friday, November 8, 2019, the Select Committee on the Climate Crisis' Chair Kathy Castor traveled to South Florida. Her visit included discussions and site visits examining the reef ecosystem health of the National Marine Sanctuary in North Key Largo; environmental conservation in the Everglades National Park in Florida; a visit to the Wall of Wind at Florida International University to examine hurricane force winds and their impacts; and resiliency and the impacts of coastal flooding throughout the city of Miami Beach. As part of the Chair's trip to South Florida, she met with the following people:

- The Honorable Debbie Mucarsel-Powell, Member of Congress
- The Honorable Donna Shalala, Member of Congress
- The Honorable Jose Javier "J.J." Rodriguez, Senator, Florida State Senate
- The Honorable Jason Pizzo, Senator, Florida State Senate
- The Honorable Dan Gelber, Mayor, City of Miami Beach, Florida
- The Honorable Nick Duran, State Representative, Florida State House of Representatives
- The Honorable Phillip Stoddard, Mayor, South Miami, Florida
- The Honorable Brent Latham, Mayor, North Bay Village, Florida
- Chris Bergh, Director of Coastal and Marine Resilience, The Nature Conservancy
- Lad Akins, Chapter Director, Florida Keys National Marine Sanctuary Foundation
- Richard Olson, Professor and Director of Extreme Events Research, Office of the Vice President for Research, Florida International University
- Todd Crawl, Professor; Director, Institute of Water and Environment, Florida International University
- Tiffany Troxler, Research Assistant Professor; Associate Director of Science, Sea Level Solutions Center, Florida International University
- Jayantha "Obey" Obeysekera, Florida International University
- Alec Bogdanoff, Principal & Co-Founder, Brizaga, Inc.
- Jim Murley, Chief Resiliency Officer, Miami-Dade County
- Jennifer Jurado, Chief Resiliency Officer, Broward County
- Michelle Burge, Chief of Staff to Mayor Dan Gelber
- Jimmy Morales, City Manager of Miami Beach, Florida
- Marcia Monserrat, Chief of Staff and Legislative Liaison to Jimmy Morales

- Roy Coley, Public Works Director, City of Miami Beach, Florida
- Amy Knowles, Deputy Climate Resilience Officer, City of Miami Beach, Florida
- Susy Torriente, Assistant City Manager & Climate Resilience Officer, City of Miami Beach, Florida
- Elizabeth Wheaton, Office of Environment and Sustainability Director, City of Miami Beach, Florida
- Eleazar Melendez, Miami Climate Alliance
- Ralph Rosado, City Manager of North Bay Village, Florida
- Emily Gorman, Sierra Club

Select Committee Member Trip to UNFCCC COP25

From Sunday, December 1, 2019 through Tuesday, December 3, 2019, Members of the Select Committee on the Climate Crisis joined a bicameral Congressional Delegation led by Speaker Nancy Pelosi to the 2019 United Nations Framework Convention on Climate Change Conference, known as COP25, held in Madrid, Spain. The delegation engaged in several key bilateral discussions, including with U.N. Secretary General Antonio Guterres, H.M. King Felipe VI of Spain, President Pedro Sanchez of Spain and European Parliament President David Sassoli. Members participated in the COP25 opening ceremony and met separately with international, U.S. and faith-based NGOs to learn more about their efforts around the globe. Members also attended a meeting of the Climate Vulnerable Forum, which brings together the nations most at risk from the climate crisis, at which Speaker Pelosi spoke alongside several heads of governments including Dutch Prime Minister Mark Rutte, Prime Minister Sheikh Hasina Wazed of Bangladesh and Costa Rican President Carlos Alvarado Quesada.

Ranking Member Garret Graves Trip to California and Pennsylvania

From Friday, December 6, 2019 through Monday, December 9, 2019, the Select Committee on the Climate Crisis' Ranking Member Garret Graves traveled to California and Pennsylvania. His visit included site visits at Department of Energy national laboratories and discussions with innovation site leaders and climate change stakeholders.

APPENDIX I

PRINTED MEETINGS

116-1—Organizational Meeting for the 116th Congress; Thursday, March 28, 2019

PRINTED HEARINGS

116-2—Generation Climate: Young Leaders Urge Climate Action Now; Thursday, April 4, 2019

116-3—Solving the Climate Crisis: Drawing Down Carbon and Building Up the American Economy; Tuesday, April 30, 2019

116-4—Creating a Climate Resilient America; Thursday, May 23, 2019

116-5—Solving the Climate Crisis: Ramping Up Renewables; Thursday, June 13, 2019

116-6—Solving the Climate Crisis: Cleaning Up Heavy Duty Vehicles, Protecting Communities; Tuesday, July 16, 2019

116-7—Creating a Climate Resilient America: Business Views on the Costs of the Climate Crisis; Thursday, July 25, 2019

116-8—Colorado’s Roadmap for Clean Energy Action: Lessons from State and Local Leaders; Thursday, August 1, 2019

116-9—Solving the Climate Crisis: Manufacturing Jobs for America’s Workers; Tuesday, September 10, 2019

Voices Leading the Next Generation on the Global Climate Crisis; Wednesday, September 18, 2019; **Joint Hearing—Print Produced by House Foreign Affairs Committee*

116-10—Solving the Climate Crisis: Reducing Industrial Emissions Through U.S. Innovation; Thursday, September 26, 2019

116-11—Solving the Climate Crisis: Cleaner, Stronger Buildings; Thursday, October 17, 2019

116-12—Solving the Climate Crisis: Natural Solutions to Cutting Pollution and Building Resilience; Tuesday, October 22, 2019

116-13—Solving the Climate Crisis: Opportunities in Agriculture; Wednesday, October 30, 2019

116-14—Member Day; Thursday, November 14, 2019

116-15—Creating a Climate Resilient America: Reducing Risks and Costs; Wednesday, November 20, 2019

116-16—Creating a Climate Resilient America: Smart Finance for Strong Communities; Wednesday, December 11, 2019

116-17—Creating a Climate Resilient America: Overcoming the Health Risks of the Climate Crisis; Wednesday, February 5, 2020

116-18—Solving the Climate Crisis: Building a Vibrant and Just Clean Energy Economy; Tuesday, July 28, 2020

116-19—Creating a Climate Resilient America: Strengthening the U.S. Financial System and Expanding Economic Opportunity; Thursday, October 1, 2020

APPENDIX II

ADDITIONAL VIEWS

The Activity Report of the 116th Congress documents the extensive work of the Select Committee on the Climate Crisis during this Congress. In addition, the Democratic Members also released the majority staff report “Solving the Climate Crisis: The Congressional Action Plan for a Clean Energy Economy and Healthy, Resilient, and Just America.” The staff report lays out hundreds of policy recommendations for congressional action and centers on 12 key pillars. The recommendations were based on the work detailed in this Activity Report, 700 substantive responses to the Committee’s September 2019 Request for Information, and more than a thousand stakeholder meetings with Members and staff. These additional views, submitted on behalf of the Select Committee on the Climate Crisis’ Majority, include the Preface and the Executive Summary of the Climate Crisis Action Plan, which sums up the investigatory work of the Committee over the course of the 116th Congress and the Congressional action needed to help solve the climate crisis.

From “Solving the Climate Crisis: The Congressional Action Plan for a Clean Energy Economy and a Healthy, Resilient, and Just America”

PREFACE

At the time of this report’s release in June 2020, the nation was reeling. The COVID–19 pandemic had claimed more than 120,000 lives in the United States. Months of stay-at-home orders and business closures had put 40 million Americans out of work, upending the livelihoods of working families. More than one in four workers claimed unemployment benefits, and many more struggled to navigate an often-broken unemployment filing system. This economic crisis, which by many measures exceeded the worst of the Great Recession, exacerbated economic inequalities that existed before the pandemic, particularly for women and people of color. As some states began to slowly reopen at the end of May, the nation erupted in protest in response to yet another police killing of a defenseless African-American man, George Floyd. Throughout it all, President Trump failed to lead the country in a unified and compassionate response, instead choosing to fan the flames of discord and distrust.

Against this backdrop, one may wonder why Select Committee Democrats would choose to release this report with recommendations to solve the climate crisis.

We cannot wait. Atmospheric carbon dioxide concentrations in May 2020 exceeded the highest monthly average ever recorded. The planet suffered through the second hottest year ever in 2019, and

May 2020 tied for the highest global May temperature in 141 years of recordkeeping. As the Earth continues to heat up, climate-related impacts, including heat waves, extreme storms, droughts, and flooding, are worsening. The country's most vulnerable populations—low-income communities and communities of color that have been hardest hit by the COVID-19 pandemic—are most at risk, as underlying demographic, socioeconomic, and health factors act as threat multipliers for the dangerous impacts of climate change.

While the harmful human and economic costs of inaction continue to compound, the solutions to climate change—including building and rebuilding America's energy, transportation, and manufacturing infrastructure to be cleaner and more resilient to climate impacts—offer an opportunity to propel the economy forward. Solving the climate crisis is hard work, but it provides a pathway to millions of good-paying, high-quality jobs that can fortify and expand America's middle class. As Congress crafts legislation to help the country rebound from the pandemic and economic crisis, clean energy and climate investments can power short- and long-term economic recovery.

Building a resilient, clean economy affords us another opportunity: to acknowledge and commit to correcting past policy failures that created the climate crisis and the systemic economic and racial inequalities that plague our communities today. This report offers policy recommendations that address the urgency of the climate crisis and begin to repair the legacy of environmental pollution that has burdened low-income communities and communities of color for decades. Climate solutions must have justice and equity at their core.

The protests in response to George Floyd's death are reminders of the consequences of past inaction, while responses to the COVID-19 pandemic demonstrate that Americans can mobilize en masse to save lives. Both underscore that there are no foregone conclusions. What we choose to do now shapes the future. What happens next—for racial equality, for public health, for the climate crisis—depends on us.

EXECUTIVE SUMMARY

American leadership and ingenuity are central to solving the climate crisis. With the devastating health and economic consequences of climate change growing at home and abroad, the United States must act urgently, guided by science, and in concert with the international community to provide a livable climate for today's youth and future generations. We must harness the technological innovation of the moonshot, the creativity of our entrepreneurs, the strength of our workers, and the moral force of a nation endeavoring to establish justice for all. Working together, we will avert the worst impacts of the climate emergency and build a stronger, healthier, and fairer America for everyone. The Climate Crisis Action Plan outlined in this report provides a roadmap for Congress to build a prosperous, clean energy economy that values workers, advances environmental justice, and is prepared to meet the challenges of the climate crisis.

A FRAMEWORK FOR CONGRESSIONAL ACTION

In January 2019, House Resolution 6 created the bipartisan Select Committee on the Climate Crisis to “develop recommendations on policies, strategies, and innovations to achieve substantial and permanent reductions in pollution and other activities that contribute to the climate crisis.”¹ The resolution directed the Select Committee to deliver policy recommendations to the standing legislative committees of jurisdiction for their consideration and action.² Over the last 17 months, the Select Committee has consulted with hundreds of stakeholders and scientists, solicited written input, and held hearings to develop a robust set of legislative policy recommendations for ambitious climate action.

In this report, the majority staff for the Select Committee lays out a framework for comprehensive congressional action³ to satisfy the scientific imperative to reduce carbon pollution as quickly and aggressively as possible, make communities more resilient to the impacts of climate change, and build a durable and equitable clean energy economy. To succeed, Congress needs to put people and communities at the center of climate policy so they can see and experience the tangible benefits of climate action for their health and livelihoods.

In practical terms, this means building and rebuilding America’s infrastructure, the foundation of the American economy and communities; reinvigorating American manufacturing to create a new generation of secure, good-paying, high-quality jobs; prioritizing investment where it is needed the most, including rural and deindustrialized areas, low-income communities, and communities of color; and beginning to repair the legacy of economic and racial inequality that has left low-income workers and communities of color disproportionately exposed to pollution and more vulnerable to the costs and impacts of climate change. By responding to the material harm of the climate crisis, Congress will also address the moral obligation to protect the most vulnerable and allow future generations to thrive.

THE CLIMATE CRISIS ACTION PLAN

To have a chance at limiting warming to 1.5°C and avoiding increasingly severe impacts from climate change, the Intergovernmental Panel on Climate Change (IPCC) concluded that global net anthropogenic carbon dioxide emissions must fall by 45% from global 2010 levels by 2030 and reach net-zero by 2050.⁴ Hitting these targets will require a “rapid and far-reaching” transition across the economy that is “unprecedented in terms of scale.”⁵

The Climate Crisis Action Plan establishes a goal of reaching net-zero greenhouse gas emissions economy-wide in the United

¹H. Res. 6, “Adopting the Rules of the House of Representatives for the One Hundred Sixteenth Congress, and for other purposes,” Section 104(f), 116th Congress.

²H. Res. 6 directed the Select Committee to deliver policy recommendations by March 31, 2020. The COVID-19 pandemic delayed the Select Committee’s report release until June 2020.

³This report focuses on what actions Congress should take to address the climate crisis rather than what the White House should do with its existing authority. Ideally, legislative and administrative action would be complementary.

⁴Intergovernmental Panel on Climate Change (IPCC), *Special Report on Global Warming of 1.5°C* (October 2018) at 14.

⁵*Ibid.* at 17.

States by no later than 2050; directs the president to set ambitious interim targets to meet or exceed that goal; and calls for achieving net-negative greenhouse gas emissions during the second half of the century.

The Climate Crisis Action Plan will build an American economy that protects public health and values workers, families, communities, and current and future generations who are depending on Congress to tackle the existential threat of climate change in a just and equitable way. The Climate Crisis Action Plan lays out hundreds of recommendations for comprehensive congressional action and centers on 12 key pillars, as detailed below. These recommendations offer an array of policy solutions that can benefit communities across the country, whether they are rural or urban; create good, local jobs; and reduce pollution.

The majority staff for the Select Committee previewed its draft policy recommendations with the non-partisan think tank Energy Innovation: Policy and Technology LLC (“Energy Innovation”). Energy Innovation used their open-source Energy Policy Simulator⁶ to model the emissions reductions and co-benefits from implementing a *subset* of the Select Committee’s recommendations. According to Energy Innovation’s model, the Select Committee majority staff’s recommendations across the 12 pillars will set the country on a path to achieving net-zero greenhouse gas emissions by 2050. The subset of recommendations from the Climate Crisis Action Plan would:

- Reduce net U.S. greenhouse gas emissions by 37% below 2010 levels in 2030 and 88% below 2010 levels in 2050.⁷ The remaining 12% of emissions comes from the hardest to decarbonize sectors, such as heavy-duty and off-road transportation, industry, and agriculture.
- Lead the United States to reach net-zero carbon dioxide emissions before 2050, in line with the IPCC’s guidance on emissions reductions needed to limit warming to 1.5°C.
- Deliver significant health benefits, avoiding an estimated 62,000 premature deaths annually by 2050, primarily by reducing fine particulate matter pollution.
- By 2050, the cumulative estimated health and climate benefits are almost \$8 trillion (real 2018 U.S. dollars). In 2050 alone, the estimated health and climate benefits exceed \$1 trillion.

In developing the policy recommendations under each pillar below, Congress should implement an inclusive stakeholder process that solicits early input and feedback from those most affected by the outcomes of the policy choices. In particular, Congress should “meaningfully involve and value the voices and positions of EJ frontline and fenceline communities”⁸ and labor organizations.

⁶Energy Innovation: Policy and Technology LLC, Energy Policy Simulator, <https://www.energypolicy.solutions/>.

⁷This is equivalent to 40% below 2005 levels by 2030 and 89% below 2005 levels by 2050. We used the 2010 reference point because the IPCC uses 2010 levels when it describes near-term emissions reduction goals to limit warming to 1.5°.

⁸Equitable and Just National Climate Platform, <https://ajustclimate.org/about.html>. Accessed June 2020.

Pillar 1: Invest in Infrastructure to Build a Just, Equitable, and Resilient Clean Energy Economy

Congress needs to make a deep, sustained commitment to rebuild and modernize the nation's infrastructure to reduce greenhouse gas emissions and withstand the unavoidable impacts of a warming climate. Doing so will create good-paying, high-quality jobs to expand America's middle class and lay a solid foundation for an equitable economy.

BUILD A CLEANER AND MORE RESILIENT ELECTRICITY SECTOR TO ACHIEVE NET-ZERO EMISSIONS FROM POWER GENERATION BY 2040

Decarbonization of the electricity sector is the linchpin of any national strategy to achieve net-zero emissions economy-wide by no later than 2050. Electrification of key end uses in the transportation, buildings, and industrial sectors will be essential to cut emissions from those sectors. Electrification only works as a decarbonization strategy, however, if the grid is as clean as possible as soon as possible. Energy efficiency can moderate the expected increase in electricity demand from electrification and reduce energy costs for consumers.

As the electricity grid becomes the central feature of a comprehensive climate strategy, its reliability and resilience to climate-related threats becomes even more paramount. Recent events have shown that the electricity grid is vulnerable to climate-related disasters, such as extreme storms that knock down power lines, but also can trigger disasters, such as wildfires sparked by power lines igniting vegetation in hot and dry conditions.

Policy Toplines: Congress should enact a Clean Energy Standard to achieve net-zero emissions in the electricity sector by 2040 and an Energy Efficiency Resource Standard to smooth out rising electricity demand from electrification and save consumers money on their power bills. Congress should extend and expand clean energy tax incentives and grant programs, such as the Energy Efficiency and Conservation Block Grant Program, to maximize near-term deployment of energy efficiency, renewable energy, and zero-carbon electricity sources. For the longer term, Congress needs to invest in research and development across technologies, but particularly in energy storage. Congress should ensure that low-income communities and communities of color have equitable access to and benefit from these clean energy resources.

To fully harness the country's vast renewable energy resources onshore and offshore, Congress must direct the Federal Energy Regulatory Commission (FERC) to develop a long-range transmission infrastructure strategy to site more interstate transmission lines in high-priority corridors. Congress also should direct FERC to remove roadblocks in power markets that slow the growth of electricity generation from clean sources.

To make the grid more resilient to climate impacts, Congress will need to partner with state, local, tribal, and territorial governments, utilities, workers, and communities to harden the electric grid's physical infrastructure; deploy new technologies to detect grid disruptions quickly; and facilitate community access to clean

microgrids and distributed energy resources to make households less reliant on the centralized grid.

BUILD A CLEANER AND MORE RESILIENT TRANSPORTATION SECTOR

The transportation sector—including cars, trucks, buses, airplanes, ships, rail, and other modes—is the largest source of energy-related carbon dioxide emissions in the United States. Across modes, the story is similar: emissions are a function of the vehicle’s fuel efficiency, the fuel’s carbon intensity, and the number of miles traveled each year. Each part of the transportation sector, however, is at a different stage of zero-emission technological innovation and faces unique challenges to decarbonization and, as a result, may require a tailored policy approach.

Well-designed policy should lead to new manufacturing and supply chain innovations that create good-paying jobs at home and bolster American competitiveness.

In addition to contributing to the climate problem, transportation infrastructure is heavily exposed to extreme weather and climate impacts, from floods that wash out bridges and roads to heat waves that ground airplanes. Without proactive action to build resilience, climate change will compromise the reliability and capacity of even the cleanest transportation systems.

Policy Toplines: Congress should expedite deployment of zero-emission technologies in the sectors where they are already available while making new gasoline- and diesel-powered vehicles as clean as possible. This should include setting strong greenhouse gas emissions standards for cars, heavy-duty trucks, and aviation; enacting a national sales standard to achieve 100% sales of zero-emission cars by 2035 and heavy-duty trucks by 2040; and providing incentives to build out zero-emission fueling infrastructure across the country. Ambitious initiatives to ensure more domestic manufacturing of cleaner vehicles and their components must accompany these policies. At the same time, Congress should establish a Low Carbon Fuel Standard to reduce emissions from remaining gasoline-powered vehicles and transportation modes for which electrification may not be an option in the short to medium term, such as aviation, long-haul trucking, and shipping. Congress also should invest in aggressive research to develop and demonstrate new zero-emission technologies and fuels for these harder-to-decarbonize parts of the transportation sector.

Cutting pollution from passenger vehicles becomes a more challenging task if drivers must travel farther each year to access jobs and services. Congress needs to work with local communities and states to make housing, businesses, and critical services more accessible and double federal spending on public transit and other zero-carbon modes to provide households with more lower-carbon, convenient, and affordable transportation options. Federal policy should ensure that all transportation systems are designed, maintained, and repaired to withstand climate impacts.

BUILD AND UPGRADE HOMES AND BUSINESSES TO MAXIMIZE ENERGY EFFICIENCY AND ELIMINATE EMISSIONS

Buildings account for 40% of U.S. energy use. To fully decarbonize the building sector, new and existing buildings must

maximize energy efficiency, generate clean energy onsite or nearby where feasible, electrify end uses as the grid decarbonizes, and eliminate emissions from building construction and materials. This transformation will require massive investments to reach all communities and the millions of U.S. buildings that vary in size, age, climate, purpose, ownership, and use. These investments will boost local economic development, create good-paying jobs, and improve quality of life in communities across the country. The federal government must work in partnership with state and local governments, as they largely have authority over the design and construction of residential and commercial buildings in their jurisdictions.

Policy Toplines: Congress should incentivize states and cities to adopt updated model building codes, including net-zero-emission building codes, and establish tax incentives for the construction of net-zero buildings, with the goal of making all new residential and commercial buildings net-zero emissions by 2030. Congress should require new federal buildings to achieve net-zero emissions by 2030 as well. To reduce energy use and emissions from existing buildings, Congress should set benchmarking requirements for commercial buildings and encourage cities and states to adopt performance-based standards for buildings; provide incentives for energy efficiency improvements, onsite renewable energy generation, and electrification of end uses in buildings, such as space and water heating; invest in large-scale weatherization and efficiency in low-income and frontline communities; and require federal buildings to undergo deep energy retrofits, perform energy and emissions benchmarking, and meet ambitious energy use and emissions intensity targets. To reduce emissions from building construction, Congress should incentivize building reuse and require federal buildings to use lower-emission building materials.

INVEST IN WATER SYSTEMS TO PROVIDE CLEAN WATER AND PREVENT CATASTROPHIC FLOODING

Water systems across the nation are under stress due to chronic underinvestment and deferred maintenance, particularly in low-income communities and communities of color. The climate crisis threatens to increase public health and safety emergencies as conditions overwhelm water and wastewater infrastructure, levees, and dams. While the investment needed is substantial, the costs of continued neglect are far greater.

Policy Toplines: Congress should establish new standards for water infrastructure resilience that account for climate impacts, including more frequent and damaging floods, droughts, and erosion. Congress also should ensure robust public engagement in water infrastructure projects, particularly for environmental justice communities whose input should inform decisions about how to reduce climate impacts. Congress will need to integrate nature-based strategies and apply innovative finance approaches to ensure safe and clean water supplies, efficient wastewater treatment, and dams and levees that are appropriately sited, designed, and maintained to last under increasingly extreme conditions.

PREPARE THE NATION'S TELECOMMUNICATIONS NETWORKS FOR CLIMATE IMPACTS

The reliability of wireless and broadband networks is critical for climate resilience. Failures in wireless networks hamper disaster response and 9-1-1 services, and uneven access to broadband creates a “digital divide” that broadens existing inequities for frontline and rural communities most affected by the climate crisis.

Policy Toplines: Congress should invest in Next Generation 9-1-1 and direct the Federal Communications Commission to ensure the reliability of wireless communications networks during disasters. Congress should expand broadband networks with the goal of achieving reliable and universal access and providing continuity of internet services for education, telemedicine, and other essential needs during disasters.

PLUG LEAKS AND CUT POLLUTION FROM AMERICA'S OIL AND GAS INFRASTRUCTURE

Leaky oil and natural gas infrastructure, from well pads to pipelines, allows methane, a climate super-pollutant, to escape into the atmosphere. Technology exists to detect these leaks and even capture the methane for profitable sale. Oil and gas production and transmission also pose risks to air and water quality but enjoy exemptions from cornerstone environmental laws.

Policy Toplines: Congress should set a national methane pollution reduction goal for the oil and gas sector of 65% to 70% by 2025 and 90% by 2030, relative to 2012 levels, and phase out routine flaring of methane. For pipelines, Congress should direct regulators to set new standards for pipeline operators to detect and repair methane leaks; provide financial support for cities and states to eliminate methane leaks from natural gas distribution lines within 10 years; and update the Federal Power Act to ensure FERC considers climate science and public input when siting new natural gas infrastructure. Congress also should close exemptions for the oil and gas industry in the Clean Air Act, Clean Water Act, and Resource Recovery and Conservation Act.

Pillar 2: Drive Innovation and Deployment of Clean Energy and Deep Decarbonization Technologies

IPCC scientists have shown that the world needs to deploy clean energy technologies as quickly as possible to slash greenhouse gas emissions and limit warming to 1.5°C. Market forces and state and federal policies are driving some clean energy deployment already, but substantial public and private investment would accelerate this trend. Full decarbonization of the economy, however, may require new technologies that have yet to be invented. Robust innovation policy at all process stages—research, development, demonstration, and deployment—will be critical to the timely and widespread implementation of new clean energy and other decarbonization technologies.

Policy Toplines: Congress should support all stages of climate-related innovation by recommitting to Mission Innovation—a global initiative working to accelerate global clean energy innovation—and boosting funding for federal clean energy research, develop-

ment, and demonstration; prioritizing climate in the Department of Energy's (DOE's) mission and reorganizing DOE to meet this goal; facilitating technology transfer and commercialization through initiatives like regional energy innovation partnerships; and creating a national climate bank and expanding the DOE loan guarantee program to leverage private investment for deployment of decarbonization technologies and climate-resilient infrastructure. Congress should start a DOE Energy Justice and Democracy program to ensure environmental justice communities have access to innovations in energy efficiency and renewable energy and to reduce energy poverty. To shift private capital toward climate-smart investments, Congress should require corporate disclosure and federal analysis of climate-related financial risks.

Pillar 3: Transform U.S. Industry and Expand Domestic Manufacturing of Clean Energy and Zero-Emission Technologies

The world is on the cusp of a manufacturing and industrial transformation inspired by the need to deploy zero-emission technologies and build cleaner, more resilient infrastructure. The United States has an opportunity to establish itself as a global leader in this transformation and spur a new generation of good-paying, high-quality manufacturing jobs in the process.

REBUILD U.S. INDUSTRY FOR GLOBAL CLIMATE LEADERSHIP

The industrial sector may be one of the most challenging to decarbonize, given its diversity and reliance on energy-intensive processes. Eliminating industrial emissions depends on the discovery of new technologies and the development and deployment of platform technologies, such as industrial efficiency, electrification, carbon capture, low-emission hydrogen, and materials recirculation and substitution. A comprehensive approach to achieve a net-zero-emissions industrial sector by midcentury would enhance U.S. competitiveness, create high-quality domestic jobs, and ensure clean, safe, fair, and equitable industrial development for workers and communities.

Policy Toplines: Congress should establish performance standards to guarantee emissions reductions from industrial facilities and pair them with border adjustment mechanisms to level the playing field with foreign goods made with higher-polluting processes. To complement these standards, Congress should support research, development, and demonstration of breakthrough and platform technologies for industrial decarbonization, including carbon capture, utilization, and storage; provide firms in the industrial sector with access to revolving loan funds, grants, and tax incentives for efficiency upgrades, process changes, and retooling; develop infrastructure for key decarbonization technologies, including low- and zero-carbon hydrogen; and create markets for low-emission goods through a federal Buy Clean program. Congress should facilitate the transition to a circular economy that eliminates waste and pollution by supporting research and development, infrastructure, and standards for materials efficiency, substitution, and recycling.

INVEST IN DOMESTIC MANUFACTURING OF CLEAN ENERGY, CLEAN VEHICLE, AND ZERO-EMISSION TECHNOLOGIES

American innovation will be critical to solving the global climate crisis, but it is only one measure of U.S. leadership. American workers also should be the ones to manufacture these American ideas, creating high-quality jobs at home and robust export markets abroad.

Policy Toplines: To spur more domestic manufacturing, Congress should create a tax credit to retool, expand, or establish domestic clean energy and grid technology manufacturing facilities; establish a production tax credit for clean energy, energy efficiency, and decarbonization technologies and products; expand DOE grant programs and loan guarantees to construct new or retool existing U.S. facilities to manufacture zero-emission vehicles; and develop national strategies for clean technology manufacturing and critical mineral supply chains. Congress should tie federal funding for innovation to domestic manufacturing of resulting technologies. Congress should also leverage federal procurement policies to build demand for domestic clean energy and zero-emission technologies and products.

DEVELOP, MANUFACTURE, AND DEPLOY CUTTING-EDGE CARBON REMOVAL TECHNOLOGY

According to the IPCC, all pathways that limit global warming to 1.5°C require carbon dioxide removal, such as direct air capture, to achieve net negative emissions.⁹ The United States has the opportunity to lead the world in developing, deploying, and exporting this essential technology.

Policy Toplines: To jumpstart a direct air capture industry in the United States, Congress should dramatically increase federal investment in carbon removal research and development; improve financial incentives for direct air capture technology; expand demonstration projects to safely store carbon below ground; and create markets for fuels made from carbon captured from the atmosphere.

Pillar 4: Break Down Barriers for Clean Energy Technologies

Clean energy technology faces several structural barriers to rapid and widespread deployment. At the top of the list is a tax code that benefits oil, coal, and other incumbent energy technologies over new technologies and an economic system that fails to account for the cost of carbon pollution from fossil fuel combustion.

Policy Toplines: Congress should repeal tax breaks for large oil and gas companies as a first step toward building a fairer tax code that supports reaching net-zero emissions by 2050 at the latest. Congress also should put a price on carbon to correct the failure of the market to account for the costs of unmitigated pollution. Carbon pricing is not a silver bullet and should complement a suite of policies to achieve deep pollution reductions and strengthen community resilience to climate impacts. Congress should pair a price with policies to achieve measurable pollution reductions from facilities located in environmental justice communities and policies to

⁹Intergovernmental Panel on Climate Change, *Special Report on Global Warming of 1.5°C* (October 2018) at 14.

ensure energy-intensive, trade-exposed industries do not face unfair competition from foreign competitors using dirty technologies.

Pillar 5: Invest in America's Workers and Build a Fairer Economy

Tackling climate change and reaching net-zero emissions as soon as possible offers a unique opportunity to rebuild the economy on a stronger foundation of equity and fairness for workers and their communities. Smart climate policy must provide tangible benefits to economically vulnerable communities, put working people front and center, and deliver good-paying, high-quality jobs and accessible career pathways into them for all Americans. Building a clean energy economy can help put unemployed Americans back to work and relieve the economic crisis sparked by the COVID-19 pandemic. Congress also needs to respect the contributions of coal miners and other fossil fuel workers and provide a comprehensive set of systemic supports for these workers and their communities.

Policy Toplines: Congress should secure workers' right to organize a union and negotiate for higher wages, safer working conditions, and better benefits. As it reauthorizes and considers new investments in clean infrastructure, Congress should commit federal funding only to projects that meet strong labor standards. To support veterans of the coal industry and communities most affected by the economic transition away from fossil fuels, Congress should establish a National Economic Transition Office to coordinate, scale up, and target federal economic and workforce development assistance to communities and workers.

Pillar 6: Invest in Disproportionately Exposed Communities to Cut Pollution and Advance Environmental Justice

In the United States, communities of color, low-income communities, and tribal and Indigenous communities "are disproportionately burdened by environmental hazards that include exposure to polluted air, waterways, and landscapes."¹⁰ These same communities are more vulnerable to the health impacts and escalating costs of climate change. Federal climate policy needs to "improve the public health and well-being of all communities while tackling the climate crisis and environmental racism head-on."¹¹ Engaging leaders from these communities early in the policymaking process and soliciting their expertise throughout is essential for ensuring the policies will work in their communities and benefit those most in need.

Policy Toplines: Environmental justice must be at the center of federal climate and environmental policy. Congress should direct the Environmental Protection Agency to consider the cumulative pollution impacts of the facilities it permits; support federal and academic research of the cumulative and distributional impacts of federal climate, health, and environmental policy on environmental justice communities; prioritize these communities for new federal spending and projects to deploy clean energy and replace aging infrastructure; collaborate with USDA, tribes, environmental justice communities, and NGOs to address food insecurity; ensure mean-

¹⁰ Environmental Justice for All Act, Section 1.

¹¹ Equitable and Just National Climate Platform, <https://ajustclimate.org/about.html>. Accessed June 2020.

ingful federal engagement and consultation with environmental justice communities; and increase the capacity of environmental justice communities to participate in the policymaking process.

Pillar 7: Improve Public Health and Manage Climate Risks to Health Infrastructure

The impacts of climate change disproportionately affect the health of frontline communities and vulnerable populations who have fewer resources to cope with heat waves, degraded air quality, flash flooding, infectious disease, and other threats. People need a robust public health system to rely on for help when facing these threats or when hit with a natural disaster. Too often, health care systems are not prepared or equipped to respond to large-scale events, as demonstrated by the COVID-19 pandemic.

Policy Toplines: Congress should direct the Department of Health and Human Services to develop a national strategic action plan to assist communities and health departments in preparing for and responding to climate-related health risks, including the health-related needs of frontline communities and vulnerable populations that are disproportionately harmed by extreme weather, pollution, food insecurity, and other effects of climate change. Congress also should increase U.S. support for global surveillance and response to potential health threats; strengthen supply chains for health commodities; expand the capacity of the Centers for Disease Control and Prevention to support state, local, tribal, and territorial health departments in their climate-related work; boost funding for programs to make health systems more resilient to climate impacts; and increase support to address the mental and emotional health effects of the climate crisis.

Pillar 8: Invest in American Agriculture for Climate Solutions

America's farmers and ranchers are critical partners in solving the climate crisis, as many agricultural practices can provide valuable climate and ecosystems benefits. Climate stewardship practices such as no- and low-till farming, planting cover crops, diversified crop rotations, rotational grazing, and improved nutrient management, reduce emissions, enhance carbon sequestration, and make soils more resilient to extreme weather. Many farmers interested in adopting these practices would benefit from upfront financial and technical assistance from the Department of Agriculture, local conservation districts, extension services, and land-grant universities, including historically black colleges and universities and tribal colleges.

Policy Toplines: Congress should dramatically increase investments to support the efforts of America's farmers and ranchers to employ climate stewardship practices. This federal commitment to farmers should include more funding for Farm Bill conservation programs and expanded financial and technical assistance to farmers and ranchers, with a focus on climate mitigation and resilience. Further, Congress should set climate stewardship practice goals across all U.S. farmland and expand Department of Agriculture resources, research, and partnerships to increase federal capacity to encourage widespread adoption of climate stewardship practices. To support the next generation of farmers and build a fair, equitable,

and climate-friendly food system, Congress should embed climate mitigation and adaptation into programs for new, beginning, and socially disadvantaged farmers and ranchers and increase investments in these programs. Congress also should incentivize farmers and ranchers to incorporate energy efficiency and renewable energy on-farm and protect their farmland from development and other non-agricultural uses. As part of a comprehensive approach, Congress also should support local and regional food systems and develop initiatives to combat food waste.

Pillar 9: Make U.S. Communities More Resilient to the Impacts of Climate Change

The effects of climate change are already manifesting across the nation and are projected to intensify, including rising temperatures, increasingly severe storms, and damaging wildfires. While many communities are taking action to respond to these threats, the federal government needs to help them better manage land use, adopt robust building codes and development standards, and transition away from areas of growing risk to safer ground. Bridging the resilience gap will require substantial public and private investment and incorporation of climate risks into program design and priorities to ensure efficient use of funds.

SUPPORT COMMUNITY LEADERSHIP IN CLIMATE RESILIENCE AND EQUITY

State, local, tribal, and territorial leaders know firsthand the threats posed by the climate crisis to community wellbeing. Many have already taken steps to reduce emissions and prepare their communities to be more resilient. Federal action is needed to support communities that struggle with lack of information, guidance, and funding to build local capacities and capabilities and to confront the existential threats of rising seas, wildfires, and extreme weather.

Policy Toplines: Congress should establish a National Climate Adaptation Program to deliver technical assistance to states, local governments, tribes, and territories (SLTT), support SLTT planning, and invest in community adaptation and resilience projects with meaningful public participation, especially for environmental justice communities. Congress should establish a Tribal Government Task Force to coordinate across the federal government to overcome barriers to assistance, build or augment tribal technical capability, and ensure equitable baseline funding. Planning and investments for climate resilience should build local workforce capabilities and provide good jobs for vibrant regional economies.

BUILD—AND REBUILD—BASED ON ACTIONABLE SCIENCE, CODES, AND STANDARDS

Governments, businesses, communities, and households need reliable information to respond to climate-related risks. Building codes and standards should reflect the latest climate risk information to ensure greater resilience against floods, wildfires, tropical cyclones, and other hazards. Adoption of strong codes and standards can increase property values while reducing risks and insurance costs.

Policy Toplines: Congress should establish a Climate Risk Information Service to develop localized climate risk information and embed climate risk projections in development of resilience codes, specifications, and standards. Congress should establish federal flood and wildfire resilience standards for federally supported activities, including investments in climate resilience and disaster recovery. Congress should revise the federal tax code to incentivize state, local, and private investments in resilience.

REDUCE CLIMATE DISASTER RISKS AND ACCELERATE DISASTER RECOVERY

Since 2005, the federal government has spent at least \$450 billion on disaster assistance. Weather disasters and related federal spending are expected to increase due to climate change. These impacts are hitting low-income households, farmers, and traditionally marginalized communities hardest, driving a downward trend in livability and social resilience.

Policy Toplines: Congress must dramatically increase and provide stable federal investment in pre-disaster mitigation and resilient disaster recovery to strengthen infrastructure, support affordable and resilient housing, and help families, businesses, and communities that are seeking federal assistance to move out of the riskiest areas. Congress also must reform federal flood mapping and insurance programs to deliver forward-looking projections, help low-income households afford flood insurance, and expand coverage to reduce uninsured flood losses. Congress should call for a national wildfire mitigation strategy and increase federal investment in wildfire resilience to reduce the risk of loss of life, property, and natural resources to destructive wildfires. In all instances, Congress must prioritize investments to assure no one repeatedly suffers the impacts of climate change, including frontline communities, rural communities, and small businesses.

MAKE CLIMATE RESILIENCE PLANNING AN ESSENTIAL ELEMENT OF FEDERAL AGENCY OPERATIONS

Climate change is already affecting the operations of every agency in the federal government, and the impacts will continue to get worse as the planet warms. Federal agencies, from the U.S. Postal Service to the Department of Defense, need to plan for how they will deliver essential services amidst climate disruptions and coordinate that planning with state, local, tribal, and territorial partners.

Policy Toplines: Congress should require climate adaptation planning and coordination to address the ways that the climate crisis can disrupt federal agencies and their missions and operations. Agency adaptation plans need to identify opportunities to address climate impacts on environmental justice communities and vulnerable populations. Congress also should require major government suppliers to disclose greenhouse gas emissions and climate risks to their supply chains and operations as a consideration for the award of federal contracts.

Pillar 10: Protect and Restore America's Lands, Waters, Ocean, and Wildlife

America's landscapes and natural resources have significant potential to sequester carbon, provide important habitat for wildlife, and make ecosystems and communities more resilient to the impacts of climate change. Ecosystems such as forests, grasslands, and wetlands are natural and efficient carbon sinks, capturing and storing carbon in roots, plants, and soils. To make America's public lands and ocean a net carbon sink and a central feature of a comprehensive climate strategy, U.S. land management agencies must limit new fossil fuel leasing on public lands and waters, increase renewable energy production, and maximize deployment of natural climate solutions such as reforestation and wetland restoration.

CAPTURE THE FULL POTENTIAL OF NATURAL CLIMATE SOLUTIONS

Storing carbon in natural systems is a proven and cost-effective way to deliver large-scale carbon dioxide reductions and improve community and ecosystem resilience. By expanding protections for America's lands, waters, and ocean, Congress can reverse decades of deforestation, bolster the capacity of nature to store carbon, and avert pollution from land disturbance and extractive activities.

Policy Toplines: Congress should establish a national goal of protecting at least 30% of all U.S. lands and ocean areas by 2030, prioritizing federal and nonfederal lands and waters with high ecological, biodiversity, and carbon sequestration value. Currently, just 12% of U.S. lands and 26% of the U.S. ocean—primarily marine monuments in the remote Western Pacific or northwestern Hawaii—are permanently protected. To achieve this goal, Congress should conserve and restore landscapes, natural spaces, and America's treasured public lands through high-value protection designation and direct federal land management agencies to work collaboratively with tribes, state governments, private landowners, and local communities. Congress should also develop and fund initiatives to ensure equitable access to these natural spaces for individuals in environmental justice communities.

Forests and "blue carbon systems"—including ocean, wetland, and riverine ecosystems—are critical carbon sinks and provide important resilience services. Congress should protect mature and old growth forests; invest in forest restoration, reforestation, and afforestation on public and private lands, including urban areas to improve urban tree canopy; manage wildfire for community safety and ecological health; ensure forest management activities focus on climate and biodiversity benefits; and protect and restore native grasslands. To complete this natural resources restoration work, Congress should re-establish the Civilian Conservation Corps. Congress also should protect, conserve, and restore "blue carbon systems" to capture carbon and protect shorelines from flooding and storms; scale up responsibly-sited ocean-based renewable energy; address ocean acidification and biodiversity decline; incorporate climate adaptation into fisheries management; and prioritize natural infrastructure for coastal resilience.

Natural climate solutions also protect wildlife and endangered species, which face myriad challenges from climate change. Con-

gress should create wildlife corridors to facilitate migration, range expansion, and mating; direct federal natural resources agencies to develop a coordinated landscape-scale conservation strategy to help species adapt to a changing climate; support efforts by private landowners to protect wildlife habitat on their land; and improve implementation of the Endangered Species Act in the context of climate change.

MAKE PUBLIC LANDS AND WATERS A PART OF THE CLIMATE SOLUTION

Fossil fuel extraction on public lands is responsible for nearly a quarter of total U.S. carbon dioxide emissions, making public lands a net-emitter of greenhouse gas pollution. A comprehensive federal strategy should transform America's public lands and waters into valuable carbon sinks and a cornerstone of a successful climate plan.

Policy Toplines: Congress should direct federal land management agencies to develop a comprehensive public lands climate plan to achieve net-zero emissions on public lands and waters by 2040 at the latest. To achieve this goal, Congress should impose a moratorium on all new fossil fuel leases on public lands while ensuring robust economic development and worker transition assistance for communities dependent on fossil fuel extraction; prohibit new offshore oil and gas leasing in all areas of the Outer Continental Shelf; reduce methane pollution from oil and gas extraction; and increase renewable energy production. Additionally, Congress should protect wild and special places and make them off-limits to drilling and mining activities, including America's last remaining wild landscapes, irreplaceable cultural sites, national parks and monuments, and important wildlife habitat and corridors. Congress should also eliminate unfair and expensive government subsidies for oil and gas drilling on public lands; establish and maintain robust environmental review of and bonding requirements for all proposed projects on public lands; and reclaim orphaned wells that pose a safety and environmental threat.

Pillar 11: Confront Climate Risks to America's National Security and Restore America's Leadership on the International Stage

The climate crisis is an urgent threat to our nation and to global security, as extreme conditions affect defense facilities, operations, and personnel. Catastrophes at home and abroad increase the need for humanitarian response and aid. The climate crisis amplifies geopolitical threats as resource scarcity and catastrophic events fuel conflict, mass migration, and social and political strife. Federal leadership requires coordination across the science, security, and defense enterprises to confront threats to military infrastructure and operations and global security.

At the same time, international engagement is crucial to addressing the climate crisis. The opportunity to advance climate solutions should be a priority for the United States in our multilateral, bilateral, international development, and humanitarian efforts. A future president committed to climate action likely will rejoin the Paris Climate Agreement, but Congress also must take steps to ensure that the United States continues to support global progress on climate change.

Policy Toplines: Congress should require consideration of climate risks in defense procurement, logistics, and supply chains and ensure collaboration in climate adaptation and resilience planning among military installations and neighboring communities. Congress should direct agencies with national defense, homeland security, and science missions to identify and confront climate security threats to the homeland to safeguard critical infrastructure, protect public health, and prepare for climate-driven internal and cross-border migration.

Internationally, Congress should deliver on U.S. financial commitments to the Green Climate Fund and should advance clean energy and climate resilience in international missions and aid, including supporting greater participation of women in economic development planning and climate solutions. Congress should expand support for stopping deforestation and reducing black carbon pollution, two important drivers of climate change. Congress also should improve Arctic engagement and diplomacy given the rapid environmental changes in the region.

Pillar 12: Strengthen America's Core Institutions to Facilitate Climate Action

Action on climate change requires robust science and strong democratic institutions to foster transparency, inclusion, and government accountability.

STRENGTHEN CLIMATE SCIENCE

Climate science is the foundation of national and international efforts to address the climate crisis. Scientists and educators need strong federal funding support to advance efforts to observe, monitor, model, and understand Earth's interconnected weather and climate system and to develop the next generation of climate scientists and a climate-literate public and workforce. Federal agencies also need safeguards to protect science from political interference.

Policy Toplines: Congress should strengthen and sustain federal support for climate science, including national and international climate assessments, foundational Earth system science research, studies of climate impacts on human and natural systems, and governance approaches for the risks of atmospheric climate intervention. Congress should strengthen federal scientific integrity policies and ensure that federal agencies act on the best available science. Congress should expand and sustain federal support for climate literacy and STEM education, with an emphasis on removing barriers and broadening participation for underrepresented groups. Congress also should revive the Office of Technology Assessment to provide Members of Congress with nonpartisan scientific and technology expertise.

ASSESS THE TRUE VALUE OF FEDERAL CLIMATE ACTION

Members of Congress have access to unique services, including the Congressional Budget Office (CBO) and Congressional Research Service, to help them understand the potential impacts of proposed legislation. Many of these services, however, are not equipped or resourced to assess the technological complexities of climate change

solutions or calculate the intergenerational costs and benefits of climate-related legislation. The executive branch faces similar challenges when evaluating federal projects against the risks of climate impacts, such as flooding and wildfire.

Policy Toplines: Congress should expand CBO’s capacity to analyze the fiscal and economic impacts of proposed legislation related to climate risk. For the executive branch, Congress should establish an interagency working group to update the “Social Cost of Carbon” to reflect the best available climate science and direct OMB to work with the National Academies of Science, Engineering, and Medicine to improve agencies’ ability to assess the costs and benefits of projects to improve community climate resilience.

STRENGTHEN THE COUNTRY’S DEMOCRATIC INSTITUTIONS

All recommendations in this report will be more difficult to implement if entrenched interests—those that do not want to transition to a net-zero clean economy—continue to have a greater say in the political process than average Americans, the majority of whom support action to address climate change and advance clean energy. State voter discrimination policies attempt to suppress the vote of those who are most often burdened by pollution and face the greatest impacts from climate change—low-income communities and communities of color.

Policy Toplines: In 2019, the House of Representatives passed two bills that illustrate the type of change that may be necessary to build a healthier, more responsive democracy. H.R. 1, the For the People Act, tackles three core issues: campaign finance reform, voting rights, and federal ethics laws. H.R. 4, the Voting Rights Advancement Act of 2019, restores the full protections of the bipartisan Voting Rights Act to block state and local voter discrimination policies.

Full report available at <https://climatecrisis.house.gov/report> and <https://docs.house.gov/meetings/CN/CN00/CPRT-116-CN00-D001.pdf>

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